AMENDMENT TO THE SPECIFICATION:

Please amend the paragraph beginning on page 3, line 8, as follows:

-- FIGURES 5a, 5b, and 5c are ~~is a~~ side elevational views of the drilling assembly of FIGURE 1 performing various stages of a drilling operation on a workpiece in accordance with an embodiment of the invention; --

Please amend the paragraph beginning on page 5, line 8, as follows:

-- FIGURES 5a, 5b, and 5c are ~~is a~~ side elevational views of the drilling assembly of FIGURE 1 performing various stages of a drilling operation on a workpiece 502 in accordance with an embodiment of the invention. In this embodiment, a feedback line 513 is coupled between the needle valve assembly 111 and a control valve 510 of a drive unit 520 of the drill assembly 100. --

Please amend the paragraph beginning on page 5, line 12, as follows:

-- In ~~an upper portion of~~ FIGURE 5a, the drilling assembly 100 is shown in a first (or initial) position 504 prior to engagement with the workpiece 502. The needle valve assembly 111 is biased by the spring 120 into an open position such that a pressurized medium from the supply line 113 enters the supply gland 112, flows through the aperture 119 and through the feedback line 513 to the control valve 510. The control valve 510 is in an advance position *A* such that the drive unit 520 advances the drill bit 106 toward the workpiece 502. --

Please amend the paragraph beginning on page 5, line 18, as follows:

-- As shown in ~~a central portion of~~ FIGURE 5b, in a second (or engaged) position 506, the drill bit 106 is engaged with the workpiece 502. The needle valve assembly 111 senses the thrust of the drill assembly 100 against the workpiece 502, and the spring 120 compresses, moving the inner needle body 118 into a forward position such that the aperture 119 is blocked,

thereby dropping the pressure within the feedback line 513 The control valve 510 senses the pressure drop within the feedback line 513 and remains in the advance position *A*, maintaining the drive unit 520 in the advance mode of operation and performing a drilling operation on the workpiece 502. --

Please amend the paragraph beginning on page 5, line 26, as follows:

-- Finally, as shown in ~~a lower portion of~~ FIGURE 5c, in a third (or breakthrough) position 508, the drill bit 106 has broken through the workpiece 502, removing the thrust (or compression) force on the needle valve assembly 111 and allowing the spring 120 to re-expand, withdrawing the inner needle body 118 back from the aperture 119 and returning the needle valve assembly 111 to the open position. --

Please amend the paragraph beinning on page 6, line 8, as follows:

-- It will be appreciated that a variety of embodiments of control valves 510 and drive units 520 may be conceived, and that the invention is not limited to the particular embodiment described above and shown in FIGURES 5a, 5b, and 5c. For example, in one particular embodiment, the control valve 510 may be a 4-way pneumatic valve used in conjunction with the thrust sensing valve 110 to operate an internal spool valve that controls a drill and retract cycle of a power feed drill motor, such as the PAR-A-MATIC® series of pneumatic self-feed drill motors commercially available from Ingersoll-Rand Fluid Products of Bryan, Ohio. In this embodiment, the spool valve shifts to the feed and retract positions as air is exhausted on each side of the valve. Exhaust ports of the spool valve may be coupled to the 4-way control valve such that when the 4-way control valve is manually shifted to an advance position *A* by an operator, air (or other pressurized medium) is exhausted from a "feed" side of the spool valve and the drill motor advances. At this time, a metered air supply is being sent to the thrust sensing valve 110. The thrust sensing valve 110 air supply line 113 may also be connected to an

air pilot on the 4-way valve so that when the drill starts to penetrate the material closing the thrust sensing valve 110, a back pressure is built up causing the 4-way valve to shift back to its original position *B*. In position *B*, the "retract" side of the spool valve is connected to the thrust sensing valve 110. When the drill bit (or other tool) 106 exits the back side of the workpiece, opening the thrust sensing valve 110, the air is exhausted from the "retract" side of the spool valve causing the drill motor to retract. --

Please amend the paragraph beginning on page 6, line 25, as follows:

-- More specifically, FIGURE 6 is a schematic view of a 4-way valve assembly 600 of a drilling assembly 602 in a first operating condition 610 in accordance with yet another embodiment of the invention. The drill motor 604 of the drilling assembly 602 is in an initial starting position 606 with the drill bit 106 fully retracted away from the workpiece 502 (FIGURE 5a). In this initial starting position 606, the drill motor 604 is in a "retract" position or mode as air exhausts out of a retract port 608. As shown in FIGURE 6, the thrust valve assembly 110 (FIGURES 2 and 3) is operatively coupled to the 4-way valve assembly 600 and is initially in a closed position. --

Please amend the paragraph beinning on page 7, line 9, as follows:

-- Next, FIGURE 7 shows the 4-way valve assembly 600 of FIGURE 6 in a second operating condition 612 after an operator or controller (not shown) has commanded the drill motor 604 to begin drilling. The 4-way valve assembly 600 has now shifted to the second operating condition 612, with the drill motor 604 in the advance or drill position as air exhausts out of a drill port 609 of the drill motor 604. In the second operating condition 612 shown in

FIGURE 7, the drill bit 106 has not yet contacted the workpiece 502 (FIGURE 5a), and the thrust valve assembly 110 remains in the closed position. --

Please amend the paragraph beginning on page 7, line 10, as follows:

-- FIGURE 8 shows the 4-way valve assembly 600 of FIGURE 6 in a third operating condition 614. As the drill bit 106 contacts the workpiece 502 (FIGURE 5b), the thrust valve assembly 110 moves to an open position. Air pressure at a second air pilot 14 is now greater than an air pressure at a first air pilot 12, causing the 4-way valve assembly 600 to shift to the third operating condition 614. As shown in FIGURE 8, in the third operating condition 614, air exhausts out of both the drill and the retract ports 609, 608 of the drill motor 604. The drill motor 604 remains in the drill or advance position, and continues to advance the drill bit 106 into the workpiece 502 (FIGURE 5b). --

Please amend the paragraph beginning on page 7, line 18, as follows:

-- Finally, FIGURE 9 shows the 4-way valve assembly 600 in a fourth operating condition 616. In the fourth operating condition 616, the drill bit 106 has broken through the back side of the workpiece 502 (FIGURE 5c). The thrust valve assembly 110 returns to the closed position, and air exhausts out of the retract port 608 of the drill motor 604 only. The drill motor 604 then returns to the initial retract position, automatically withdrawing the drill bit 106 back away from the workpiece 502 (FIGURE 5a). The drill assembly 602 may then be re-positioned over another location of the workpiece 502, and the operation repeated. --